IN THE CLAIMS

Please cancel claims 6-8, and 14 without prejudice.

Please add and consider new claims 15-22 as follows:

15. (New) A method for treating a tumor in a patient in need of such treatment, said method comprising injecting an effective amount of a pharmaceutical composition into said tumor wherein said pharmaceutical composition comprises:

(a) an adenoviral vector comprising a genomic sequence of an adenovirus wherein said genomic sequence:

(i) is defective in that said adenovirus lacks a sequence needed for its replication, but which contains those sequences which carry genetic information needed for the corresponding adenovirus to enter cells which said adenovirus is capable of infecting;

(ii) comprises a set of essential sequences needed for encapsidation of said adenovirus; and

(iii) comprises an insert containing a nucleic acid sequence coding for a cytokine, wherein said insert is under the control of an endogenous or heterologous promoter; and wherein said adenovirus vector lacks the transactivators E1A and E1B and E3 region of the adenovirus; and

(b) a pharmaceutically acceptable vehicle.

16. (New) The method according to Claim 15 wherein the genomic sequence of the adenovirus lacks its 5' end region downstream of the early promoter of the E1A region of the adenovirus, and wherein the nucleic acid sequence coding for the cytokine is placed under the control of this early promoter.

17. (New) The method according to Claim 15 wherein said nucleic acid sequence coding for said cytokine is placed under the control of an adenovirus late promoter.

18. (New) The method according to Claim 15 wherein the genomic sequence of the adenovirus has a heterologous promoter and wherein said nucleic acid sequence coding for said cytokine is placed under the control of said heterologous promoter.

19. (New) The method according to Claim 15 wherein said adenoviral vector comprises a nucleic acid sequence coding for several cytokines, or separate nucleic acid sequences coding for different cytokines, wherein said nucleic acid inserts are placed under the control of separate promoters.

20. (New) The method to Claim 15, wherein said cytokine is selected from the group consisting of: interleukin-1, interleukin-2, interleukin-3, interleukin-4, interleukin-5, interleukin-6, α-interferon, γ-interferon, tumor necrosis factor, and colony stimulating factor.

21. (New) A method for treating a tumor in a patient in need of such treatment, said method comprising injecting an effective amount of a pharmaceutical composition into cells which infiltrate said tumor, wherein said pharmaceutical composition comprises:

(a) an adenoviral vector comprising a genomic sequence of an adenovirus wherein said genomic sequence:

(i) is defective in that said adenovirus lacks a sequence needed for its replication, but which contains those sequences which carry genetic information needed for the corresponding adenovirus to enter cells which said adenovirus is capable of infecting;

(ii) comprises a set of essential sequences needed for encapsidation of said adenovirus; and

(iii) comprises an insert containing a nucleic acid sequence coding for a cytokine, wherein said insert is under the control of an endogenous or heterologous promoter; and wherein said adenovirus vector lacks the transactivators E1A and E1B and E3 region of the adenovirus; and

(b) a pharmaceutically acceptable vehicle.

21. The method according to Claim 20, wherein said cells which infiltrate said tumor are lymphocytes.